

REMARKS

In the Office Action, the Examiner indicated that all of the pending claims contained subject matter that would be allowable over the prior art. Apparatus claims 15 to 25 were objected to as not providing a positive recitation of the processor. Applicants have amended claims 15 and 25 in accordance with the suggestions of the Examiner and they are now believed in condition for allowance.

Method claims 1 to 14, 26 and 27 were rejected under 35 USC 101 as not being directed to statutory subject matter. In response, Applicants have amended the independent method claims to first recite that the adjusting and reevaluating step produces information about the roughness of the line edge. Further, a new final step has been added which includes storing the derived roughness information for subsequent use. Storing this information is a final tangible step which should overcome the section 101 rejection.

It is noted that the word “storing” is not expressly found in the subject application, however, such a step would be understood as being inherently disclosed by one skilled in the art. More specifically, the system diagram in Figure 1 includes a processor which necessarily includes some form of memory. Further, the specification at page 8, line 18, describes generating theoretical signals from the model and creating a database representing different sample parameters. Such a database would inherently requiring storage of information and presumably the final results would be stored as well. In addition, in virtually any practical implementation of a wafer inspection system, the results of the inspection would be stored for some future use. In one common example, the wafer surface is scanned and the results are displayed in the form of a two-dimensional wafer map. This type of wafer map is illustrated in an earlier article by the inventors submitted with the first IDS and which was incorporated by reference in this application at page 8, line 8. (See - Opsal et al., “Contact hole inspection by real-time optical CD metrology”, *Metrology, Inspection, and Process Control for Microlithography XVII*, SPIE Vol. 5038 (2003), pp. 597-603). Such wafer maps can only be created if the calculated results derived from the measurements are stored and then displayed. For these reasons, it is believed that no new matter has been added to the claims.

Based on the above, it is respectfully submitted that all the claims are now in condition for allowance and early action is respectfully requested.

Respectfully submitted,

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